

## ABSTRACT

It is an object of the present invention to provide a non-aqueous electrolyte secondary battery having high energy density and satisfactory cycle performance by using an alloy comprising Ni and Sn as a negative active material; and the non-aqueous electrolyte secondary battery comprising a negative electrode with a composite layer containing a negative active material, a positive electrode and a non-aqueous electrolyte is characterized in that said negative active material consists of an alloy containing 5 to 25 mass% of nickel and 75 to 95 mass% of tin, and that such alloy contains  $\text{Sn}_4\text{Ni}_3$  phase and Sn phase.

It is preferable that the content ratio of  $\text{Sn}_4\text{Ni}_3$  phase and Sn phase in the above described alloy be  $0.2 \leq Z \leq 3$ , supposing that  $m_1$  is the mass of  $\text{Sn}_4\text{Ni}_3$  phase,  $m_2$  is the mass of said Sn phase, and  $Z = m_1 / m_2$ ; and that the above described composite layer contain carbon material.